香港社會醫學學院

HONG KONG COLLEGE OF COMMUNITY MEDICINE

founder College of the Hong Kong Academy of Medicine

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ADMINSTRATIVE MEDICINE

Part I Examination

Tuesday 9 June 2009

17:30 – 19:00 (1½ hours)

Paper IIB

Candidates must answer all parts of this questions

Style, clear grammatical English and legibility will be taken into consideration by the Examiners. Answers should be written in a form appropriate to the audience specified in the question.

Weighting of marks for each part of the question is shown in parenthesis.

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As part of the Leapfrog Hospital Survey, approximately 1100 urban hospitals in the United States completed the Safe Practices Survey (SPS). While these results are reported to the public on the internet it remains unclear how well quality as assessed by the SPS correlates with patient mortality and other outcomes of interest to patients and policy makers.

Mortality data were obtained from the Nationwide Inpatient Sample – a database of inpatient discharge and administrative data from urban hospitals in 24 States in the United States including All Patient Refined Diagnosis Related Groups (APR-DRG). The APR-DRG uses diagnosis codes, procedure codes and other administrative data to classify patients into base disease categories as well as assign mortality risk in 4 categories (1=minor, to 4=extreme).

SPS scoring methodology gave credit for establishing systems of awareness, accountability, ability, and action (maximum possible score 1000). The SPS was refined to be 'action-focused' (ASPS) and the scoring was based solely on the answer to the most actionable item. In 2008 the number of items in the survey were reduced from 27 to 13.

Patients hypothesized as at higher risk of death were those of 65 years of age and those with a 5% or greater expected mortality risk. Hierarchical logistic regression models were adopted for the analysis.

Those excluded from the analysis
- Patients <18 years of age
- Oncology patients
- Recipients of solid organ transplants
- Patients transferred to or from another acute care facility

QUESTION CONTINUES

Please refer to tables 2, 3 and 4 (attached) and answer the questions below:

1. (a) Describe the inpatient mortality rates by quartiles of performance for the SPS, ASPS, SPS-13 and ASPS-13 for risk-adjusted and risk- and hospital- adjusted mortality.

    (10%)

   (b) Describe the pattern of results for the hypothesized at risk for mortality patients.

    (10%)

   (c) Why was a hierarchical logistic regression model for the analysis of nationwide quality of care data?

    (15%)

2. Write a memo to the Chief Executive to indicate what definite or possible actions should be considered, in relation to the SPS or ASPS use, on the basis of these findings.

    (65%)

Source: *Kernisan LP et al. Association between hospital-reported Leapfrog Safe Practices Scores and inpatient mortality. JAMA 2009;301(13)1341-1348.*

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